

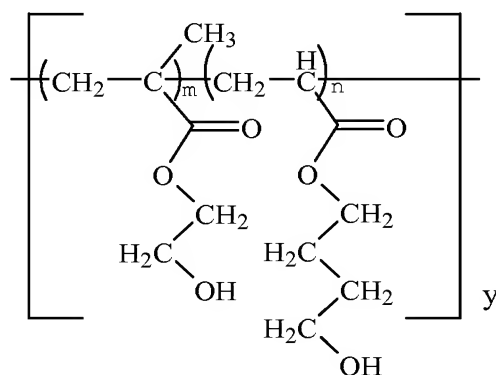
REMARKS

This paper is accompanied by a request for continued examination, and is being presented pursuant to 37 CFR § 1.114, and in response to the final official action dated May 13, 2008, wherein: (a) claims 1-11 and 16-24 are pending; (b) claims 18 and 19 have been constructively withdrawn from further consideration; (c) claims 1, 2, 6, 9-11, and 21 have been rejected under 35 USC § 102(b) as being anticipated by Sheehan U.S. Patent No. 4,795,631; and, (d) claims 1-11, 16, 17, 20-24 have been rejected under 35 USC § 103(a) as being obvious over the Sheehan patent as applied to claims 1, 2, 6, 9, 10, 11, and 21 in view of Holguin et al. U.S. Patent No. 6,706,836 and further in view of Arnaud et al. U.S. Publication No. 2003/0039621. Reconsideration and withdrawal of the rejections are respectfully requested in view of the foregoing amendments and following remarks.

This paper is timely filed as it is accompanied by a petition under 37 CFR § 1.136(a) for an extension of time to file in the first month, and payment of the required extension fee.

I. Brief Summary of the Amendments to the Claims

Each of the independent claims (i.e., claims 1, 16, and 17) has been amended to replace the prior structure with the following structure:



The foregoing structure differs from the one it replaces in that the ethylene monomer on the right-hand side of the former structure does not appear in the new structure. In that prior structure, the ethylene monomer was optional insofar as the variable x could be zero (0). These claims have been further amended to delete recitations defining x , R , and R' as those variables are no longer relevant to the revised structure. Written description support for these amendments can be found in the claims as originally filed and also in the example presented in the application, which describes a copolymer of the former structure where x is zero (0). See the Application at p. 8, lines 17-33.

Dependent claims 18 and 19 have been amended to correct an obvious typographical error (changing "glycol" to "glycerol"). This amendment is further consistent with election of glycerol species the applicants made in their "Response to Restriction Requirement" filed August 14, 2007. In view of these amendments to claims 18 and 19, the applicants respectfully submit that these claims do not define an invention separately patentable from the invention recited in the other pending claims. Accordingly, the applicants respectfully request the Patent Office reconsider and withdraw its position that these claims have been constructively withdrawn.

The foregoing claim amendments *do not* introduce new matter into the application or into the claims. Importantly, the claim amendments *do not* necessitate a new search and, therefore, any further action rejecting the claims on newly cited prior art may not be made final. See MPEP § 706.07(a) (8th ed., Rev. 6, Sept. 2007) (stating that a "second or any subsequent action on the merits in any application ... should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed").

II. The 35 USC § 102 Rejection

Claims 1, 2, 6, 9-11, and 21 have been rejected under 35 USC § 102(b) as being anticipated by Sheehan U.S. Patent No. 4,795,631. See the Action at p. 3. A response to the anticipation rejection is set forth below.

A. Proper Basis for a § 102 Rejection

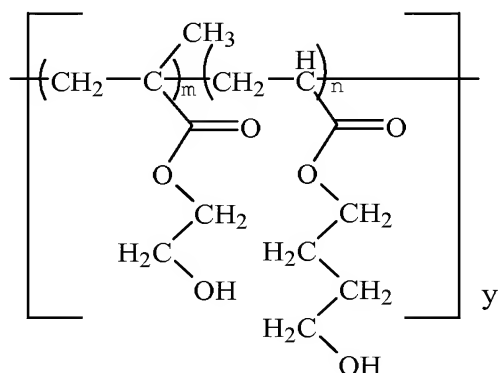
"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Thus, a determination that a claim is anticipated under 35 USC § 102 involves two analytical steps. First, the U.S. Patent and Trademark Office (Patent Office) must interpret the claim language, where necessary, to ascertain its meaning and scope. In interpreting the claim language, the Patent Office is permitted to attribute to the claims only their broadest *reasonable* meaning as understood by persons having ordinary skill in the art, considered in view of the entire disclosure of the specification. See *In re Buszard*, 504 F.3d 1364 (Fed. Cir. 2007) (reversing a Patent Office decision that applied an unreasonably broad interpretation to a claim); see also, *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). Second, the Patent Office must compare the construed claim to a single prior art reference and set forth factual findings that "each and every limitation is found either expressly or inherently [disclosed] in [that] single prior art reference." *Celeritas Techs. Ltd. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1360 (Fed. Cir. 1998). Additionally, "[t]he identical invention must be shown in as complete detail as is

contained in the patent claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

B. The § 102 Rejection Is Traversed

The applicants respectfully submit that claims 1, 2, 6, 9-11, and 21 are not anticipated by the Sheehan patent and, therefore, traverse the rejection on two separate bases.

As amended, each of these rejected claims recites a copolymer having this structure:



See generally, claim 1. The foregoing structure includes two diol esters (a diol ester of methacrylic acid shown on the left side of the structure, and a diol ester of acrylic acid shown in the middle of the structure), when each of n and m is greater than zero.

Contrary to the positions set forth in the action, the Sheehan patent does not disclose such a copolymer. The disclosure present in the Sheehan patent describes copolymers having two or more monomers selected from the group consisting of acrylic acid, methacrylic acid, acrylamide, an ester of acrylic acid, and an ester of methacrylic acid.

30 Suitable resins for use in the lip-film according to this
 invention are alkali-dispersible or alkali-soluble, water-
 insoluble, thermoplastic, film-forming resins. Particu-
 larly suitable are copolymers of acrylic acid, meth-
 acrylic acid, acrylamides, and acrylate or methacrylate
 35 esters, including terpolymers of acrylic acid, meth-
 acrylic acid and acrylamide. Sufficient acid residues
 should be incorporated in the polymer to allow the
 formation of a stable polymer dispersion in aqueous
 alkali, or to render the polymer soluble in aqueous al-
 40 kali.

See the Sheehan patent at col. 2, lines 32-35; see also, *id.*, at claim 3. Based on that description in the Sheehan patent, a person having ordinary skill in the art might contemplate a copolymer of an ester of acrylic acid, and an ester of methacrylic acid. There is no basis, however, to believe that the artisan would understand that description in the Sheehan patent to encompass a copolymer having *two diol esters* (a diol ester of acrylic acid and a diol ester of methacrylic acid), as recited in each of the claims presently rejected under § 102(b). (Similarly, there is no basis to believe that the artisan would understand that disclosure in the

Sheehan patent to encompass poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate), which also is a copolymer of two diol esters that is recited in pending claim 3.)

Furthermore, the action's citation to Example XI of the Sheehan patent as describing "hydrophilic polymers (carbaset)" does not remedy the deficiencies in the articulated rejection. "Carbaset" is not described in the Sheehan patent or in the action in a manner whereby one can determine the chemical entity described by that term or whether the chemical entity possesses the recited copolymer/terpolymer structure. The Patent Office—not the applicants—bear the burden of demonstrating that the claims are anticipated. On the current record, however, the applicants respectfully submit that the Patent Office has not met its burden. See *Celeritas Techs.*, 150 F.3d at 1360 (stating that the Patent Office must compare the construed claim to a single prior art reference and set forth factual findings that "each and every limitation is found either expressly or inherently [disclosed] in [that] single prior art reference"). Because the Sheehan patent does not disclose the copolymer/terpolymer having two diol esters recited in the rejected claims, the Sheehan patent cannot anticipate these claims. *Richardson*, 868 F.2d at 1236 ("The identical invention must be shown in as complete detail as is contained in the patent claim.").

On this basis alone, the applicants respectfully request reconsideration and withdrawal of the § 102(b) rejection.

The applicants also respectfully request reconsideration and withdrawal of the § 102(b) rejection on the basis that the Sheehan patent's disclosure requires the presence of an acrylic acid. See, e.g., the Sheehan patent at col. 2, lines 36-40 ("Sufficient acid residues should be incorporated in the polymer to allow the formation of a stable polymer dispersion in aqueous alkali, or to render the polymer soluble in aqueous alkali."). The examples disclosed in the Sheehan patent teach formulations containing CARBOSET(s), which are acrylic copolymers, in combination with ammonium hydroxide, which is known to solubilize acrylic acid.

As amended, claim 1 recites a copolymer having a structure that does not include acrylic acid or acid residues. Prior to amendment, the structure could have included acrylic acid or acid residues when, for example variable x is greater than zero (0), and when the variable R' was a "carboxy acid". The claim, however, has been amended herein to recite a structure that lacks acid residues of the type required by the Sheehan patent. Accordingly, the amended version of claim 1 is further un-anticipated by the disclosure present in the Sheehan patent. On this separate basis, the applicants respectfully request reconsideration and withdrawal of the § 102(b) rejection.

III. The 35 USC § 103(a) Rejection

Claims 1-11, 16, 17, and 20-24 have been rejected under 35 USC § 103(a) as being obvious over Sheehan U.S. Patent No. 4,795,631 as applied to claims 1, 2, 6, 9-11, and 21 in view of Holguin et al. U.S. Patent No. 6,706,836 and further in view of U.S. Publication No. 2003/0039621. See the Action at pp. 4-6. The applicants respectfully submit that the subject matter recited in the rejected claims (as amended herein) is not obvious over the combined disclosures of the applied prior art. A complete response to the obviousness rejection is set forth below.

A. Proper Basis for a § 103(a) Rejection

A proper basis for a § 103(a) rejection was set forth at pages 10-12 of the applicants' response filed February 14, 2008. For the sake of brevity, that discussion is hereby incorporated herein by reference.

B. The § 103(a) Rejection Is Traversed

The action does not clearly articulate facts and reasons why the claimed invention "as a whole" would have been obvious to a hypothetical person having ordinary skill in the art at least as of the claimed invention's effective filing date. Specifically, the action does not articulate accurate findings of fact relating to the scope and content of the prior art, and the differences between the claimed invention and the prior art. Still further, while the action appears to rationalize its conclusion of obviousness, the action does not articulate facts sufficient to support the asserted rationale. See MPEP § 2143. The action, therefore, does not set forth a prima facie case of obviousness. Accordingly, the applicants respectfully traverse the rejection, and request reconsideration and withdrawal of the rejection.

1. The Scope and Content of the Prior Art

(a) Sheehan U.S. Patent No. 4,795,631

The § 103(a) rejection is premised entirely on the propriety of the Patent Office's position that the Sheehan patent anticipates independent claim 1 (as well as dependent claims 2, 6, 9-11, and 21). In Section II.B, above, the applicants demonstrated that the Sheehan patent does not anticipate these claims because the Sheehan patent does not (a) disclose a copolymer or terpolymer having at least two diol esters, or (b) disclose a copolymer or terpolymer lacking acid residues, as recited in claim 1 and the other pending claims.

The Sheehan patent describes a lip-film composition that includes water, an alkali-dispersible, water-insoluble, thermoplastic, film forming resin, a volatile base present in sufficient quantity to solubilize the resin, and a water-insoluble plasticizer. See the Sheehan patent at col. 2, lines 3-10. According to the Sheehan patent, particularly suitable resins are copolymers having two or more monomers selected from the group consisting of acrylic acid, methacrylic acid, acrylamide, an ester of acrylic acid, and an ester of methacrylic acid.

30 Suitable resins for use in the lip-film according to this
invention are alkali-dispersible or alkali-soluble, water-
insoluble, thermoplastic, film-forming resins. Particu-
larly suitable are copolymers of acrylic acid, meth-
acrylic acid, acrylamides, and acrylate or methacrylate
35 esters, including terpolymers of acrylic acid, meth-
acrylic acid and acrylamide. Sufficient acid residues
should be incorporated in the polymer to allow the
formation of a stable polymer dispersion in aqueous
alkali, or to render the polymer soluble in aqueous al-
40 kali.

Id. at col. 2, lines 32-35; *see also, id.*, at claim 3. Based on that description in the Sheehan patent, a person having ordinary skill in the art might contemplate a copolymer of an ester of acrylic acid, and an ester of methacrylic acid. Importantly, however, the Sheehan patent contains no disclosure or teaching of a copolymer having *two diol esters* (a diol ester of acrylic acid and a diol ester of methacrylic acid). Furthermore, the Sheehan patent requires the presence of acid residues in the polymer. *Id.* at col. 2, lines 36-40 (see quote above).

Similarly, the Sheehan patent contains no disclosure or teaching of poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate). The action appears to admit as much at page 4, where it states that "Sheehan does not teach the specified polymers in that the second copolymer is different." However, it is unclear to the applicants what the Patent Office intended to convey by that remark.

(b) Holguin et al. U.S. Patent No. 6,706,836

The action (confusingly) cites Holguin et al. U.S. Patent No. 6,706,836 and alleges that in this patent Holguin et al.

explicitly teach that the copolymers of 2-hydroxyethyl and 4-hydroxybutyl acrylate can be used as a carrier for water resistant cosmetic products, the cosmetic compositions including such polymerase being easy to apply, non-occlusive, elastic and abrasion resistant. Further, teaches poly-HEMA-HBA in a cosmetic composition as a consequence of their film-forming properties.

See the Action at pp. 4-5. The action provides no pin-point cites for the disclosure alleged to be present in this patent. The applicants respectfully submit that no such disclosure can be found anywhere in this patent. At best, this patent describes that a hydrophilic pressure sensitive adhesive formed by the polymer manufacturing method described therein "has utility ... as an additive for cosmetic and skin care products." See the Holguin '836 patent at col. 11, lines 36-40.

Holguin U.S. Patent No. 6,653,427 is an earlier-issuing patent in the same family as the Holguin '836 patent. The Holguin '427 patent appears to contain certain of the disclosures the action attributes to the Holguin '836 patent:

The copolymers of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate can be used as a carrier for water resistant cosmetic products. The cosmetic composition comprising the copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate is easy to apply to and remove from the surface of human skin, it is non-greasy, and non-occlusive. Like skin, the copolymers of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate are water insoluble, hydrophilic, amphiphilic, elastic and abrasion resistant.

The Holguin '427 patent at col. 7, lines 40-49. The Holguin '427 patent, however, was *not* cited or applied by the Patent Office in the current action. The Holguin '427 patent earlier published as US 2001/0037006, which the applicants cited to the Patent Office in an information disclosure statement filed October 4, 2004. Furthermore, the applicants cited this publication in their application. See the Application at p. 3 ("Copolymers useful in the present invention are prepared according to the methods described in US 2002037006 [sic, US 2001/0037006]."). Consequently, the disclosure in the Holguin '427 patent applied in the present action to reject the claims has long been of record in this application. For the sake of expediting prosecution, the applicants will address the § 103(a) rejection as though it properly cited the Holguin '427 patent.

For the reasons expressed in subsections 2 and 3, below, neither the disclosure present in the Holguin '427 patent nor the applicants' citation to that disclosure supports the § 103(a) rejection. The Holguin '427 patent discloses a *crosslinked* poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate), but not a linear poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate). Specifically, the Holguin '427 patent describes the preparation of this copolymer by introducing monomers of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate in a solution of water and alcohol, wherein the 2-hydroxyethyl methacrylate should contain ethylene glycol dimethacrylate impurities:

(57)

ABSTRACT

A method for the preparation of gel-free poly 2-hydroxyethyl methacrylate substantially in the absence of a chain transfer agent, comprising introducing monomeric 2-hydroxyethyl methacrylate containing ethylene glycol dimethacrylate impurities in the range of about 0.05 to 0.1% by weight into a solution of alcohol and water and polymerizing. The present invention also provides a method for the preparation of gel-free homopolymer of 4-hydroxybutyl acrylate substantially in the absence of a chain transfer agent in an alcohol or in solution of alcohol and water. The present invention also provides a method for the preparation of gel-free copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate substantially in the absence of a chain transfer agent, comprising introducing monomeric 2-hydroxyethyl methacrylate containing ethylene glycol dimethacrylate impurities in the range of about 0.05 to 0.1% by weight with monomeric 4-hydroxybutyl acrylate into a solution of alcohol and water.

See the Abstract of the Holguin '427 patent; see *also, id.* at col. 2, lines 33-41 and 48-57, col. 2, line 66 to col. 3, line 8. Ethylene glycol dimethacrylate is a known cross-linking agent and

its required presence in this process demonstrates to a person having ordinary skill in the art that the copolymer is necessarily crosslinked and is not linear. The Holguin '427 patent discloses and teaches that the its copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate is insoluble in water:

The copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate is a hydrophilic copolymer that is insoluble in water and does not require crosslinking for water resistance. In addition, the copolymer of

Id. at col. 5, lines 35-38. The fact that the Holguin '427 patent indicates that its copolymer is insoluble in water further demonstrates to the skilled artisan that the copolymer is crosslinked. Accordingly, further cross-linking is not necessary.

Despite its disclosures, however, the Holguin '427 patent does not disclose a linear copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate or its combination in a cosmetic composition glycerols and a polar volatile solvent.

2. The Differences between the Claimed Invention and the Prior Art

The pending independent claims recite *linear* copolymers of two diol esters, as reflected in the chemical structure recited in each independent claim. Dependent claim 3 and subsidiary dependent claims recite *linear* poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate). While the applicants state that copolymers useful in the present invention "may be prepared according to the methods described in US 2002037006 [sic, US 2001/0037006; nka, the Holguin '427 patent]," that statement does not imply that copolymers prepared according to that method are the ones claimed. Instead, the applicants have described the claimed copolymers by reference to a chemical structure that consistently represents a linear copolymer. Furthermore, and in contrast to the teachings of the Holguin '427 patent, the present application states that the copolymers of the invention are "soluble or dispersible in polar solvents." That solubility would not exist were the copolymers crosslinked.

In contrast to the subject matter recited in the pending, independent claims, the primary prior art (the Sheehan patent) does not disclose or teach *linear* copolymers having at least two diol ester esters or lacking acid residues. The secondary prior art (namely the Holguin '427 patent) discloses *crosslinked* poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate), which is a copolymer having at least two diol ester esters lacking acid residues. However, the Holguin '427 patent also does not teach a *linear* copolymer of 2-hydroxyethyl methacrylate and 4-hydroxybutyl acrylate.

3. The Rationale Purportedly Supporting a Prima Facie Case of Obviousness

The action supports the § 103(a) rejection by the rationale that the substitution of one known element (the poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate) disclosed in

the Holguin '427 patent) for another (the copolymer disclosed in the Sheehan patent) would have yielded predictable results to the ordinarily skilled artisan.

That rationale, however, does not support a conclusion that the pending claims (as amended herein) are obvious. Simple substitution of the *crosslinked* poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate) disclosed in the Holguin '427 patent for the *acid-residue and non-diol ester-containing* copolymer disclosed in the Sheehan patent) would not lead the presently claimed invention. The pending claims (as amended herein) recite a linear copolymer of two diol esters, which in a preferred embodiment is a linear poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate). Whether or not there is anything predictable in combining the teachings of the Sheehan and Holguin '427 patents is wholly irrelevant where, as here, the combined teachings do not even result in the claimed invention.

There is no evidence of record that a linear poly(2-hydroxyethyl methacrylate-co-4-hydroxybutyl acrylate) would be obvious from the Holguin '427 patent's teachings. Indeed, the Holguin '427 patent consistently teaches a monomeric 2-hydroxyethyl methacrylate component that always includes ethylene glycol dimethacrylate. Consequently, the skilled artisan would have no apparent reason to depart from that teaching.

C. Conclusion

In view of the foregoing, the applicants respectfully traverse the § 103 rejection and submit that the claimed invention is unobvious. The applicants, therefore, request reconsideration and withdrawal of the rejection.

Prima facie obviousness under § 103 is a legal conclusion—not a fact—based on underlying facts. *In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976); *In re Kumar*, 418 F.3d 1361, 1365 (Fed. Cir. 2005) ("Determination of obviousness under 35 USC § 103 is a legal conclusion based on underlying facts."). The foregoing response identifies facts (e.g., evidence in the form of statements in the prior art) rebutting the alleged legal conclusion that the claimed invention is prima facie obvious. All of these facts must be evaluated along with the facts on which the legal conclusion was originally reached—not the legal conclusion itself. Having requested herein reconsideration of the legal conclusion set forth in the official action, the Patent Office is obligated to address all of the evidence and base its forthcoming legal conclusion(s) on such evidence, uninfluenced by its earlier conclusions. *Rinehart*, 531 F.2d at 1052.

CONCLUSION

In view of the foregoing, entry of amendments to the specification and drawings, reconsideration and withdrawal of the objections to the specification and drawings, entry of

the amendments to claims 1 and 16-19, reconsideration and withdrawal of the rejections, and allowance of all pending claims 1-11, and 16-24 are respectfully requested.

Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, the examiner is urged to contact the undersigned attorney.

Respectfully submitted,

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